sourcewater COLLABORATIVE

CALL TO ACTION

A CALL TO ACTION:
A RECOMMITMENT TO ASSESSING AND PROTECTING OUR DRINKING WATER SOURCES

Presented by Kira Jacobs, U.S. EPA Drinking Water Program
NH Drinking Water Conference, Concord, NH, May 6, 2015

WHY A CALL TO ACTION NOW?

- We face water quality challenges that are pressing and ongoing
- **Persistent threats and challenges**, and **disastrous chemical spills** highlight the importance of safe drinking water to public health and local economies
- Recent events demonstrate that **action must be taken to prevent future incidents**

January, 2014 Chemical Spill in Charleston, West Virginia Wreaks Havoc for Months

Toledo, Ohio: Summer 2014 – "Toxic Algae" Causes Alarm

Closer to home…contamination of Milford's water supply: Savage Well

Milford Superfund cleanup delayed another year

Thursday, March 13, 2014

By KATHY CLEVELAND
Staff Writer

MILFORD – A quarter of a century has passed since the federal Environmental Protection Agency added Milford's Fletcher Paint Works to its list of contaminated properties.

After years of soil sampling, public hearings, proposals for remedies and target dates that have come and [illegible] EPA announced in 2013 that the final cleanup of the Elm Street site – the exca[illegible]d disposal of soils contaminated with polychlorinated [illegible] 2013. Fletcher Paint had a storage [illegible] contaminated material to the site. [illegible] New Hampshire Department of Envi[illegible]olatile organic compounds above [illegible] down. The site received Superfund[illegible]led water to residents of a near[illegible]o affected. The trailer park was subseque[illegible]y, and the site was added to the Natio[illegible]

Two years ago, th[illegible]ed that it had sampled wells on North Riv[illegible]ence to show contamination ha[illegible]

And the list goes on: MTBE contamination, pesticides, naturally occurring arsenic in groundwater, stormwater runoff, railcar and tanker spills…so what should we do?

USGS
science for a changing world

In Cooperation with the New Hampshire Department of Environmental Services

Occurrence of Methyl *tert*-Butyl Ether (MTBE) in Public and Private Wells, Rockingham County, New Hampshire

Major Findings:

- MTBE was detected at concentrations greater than 0.2 micrograms per liter (µg/L) in 40 percent of 120 public wells and 21 percent of 103 private wells sampled.
- MTBE concentrations were greater in relatively deep public wells with low water yields.
- MTBE concentrations in wells were strongly related to urbanization.
- MTBE concentrations in public wells decreased with distance from underground gasoline storage tanks.

INTRODUCTION

Methyl *tert*-butyl ether (MTBE) has been added to gasoline since the late 1970s to increase octane and reduce vehicle emissions. Its use significantly increased with the production of reformulated gasoline (RFG) after amendments to the Clean Air Act in 1990 required the use of cleaner burning fuels. MTBE has relatively high solubility in water, low soil adsorption, and is slowly biodegraded. Thus, once it has been released to the environment through spills, leaking storage tanks, or other pathways, it has the potential for pervasive and persistent contamination of ground water. Although no Federal drinking-water standard has been established for MTBE, the Environmental Protection Agency

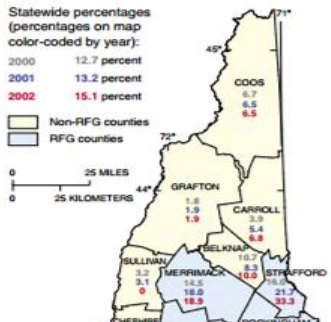
tal Services (NHDES) indicates that the presence of MTBE in public water-supply wells, at or above a detection level of 0.5 µg/L, has increased statewide from 12.7 percent in 2000 to 15.1 percent in 2002, and that occurrence is greatest in the four New Hampshire counties where use of reformulated gasoline is required (fig. 1). In Rockingham County, MTBE occurrence rates increased from 20.3 to 23.1 percent during the same period.

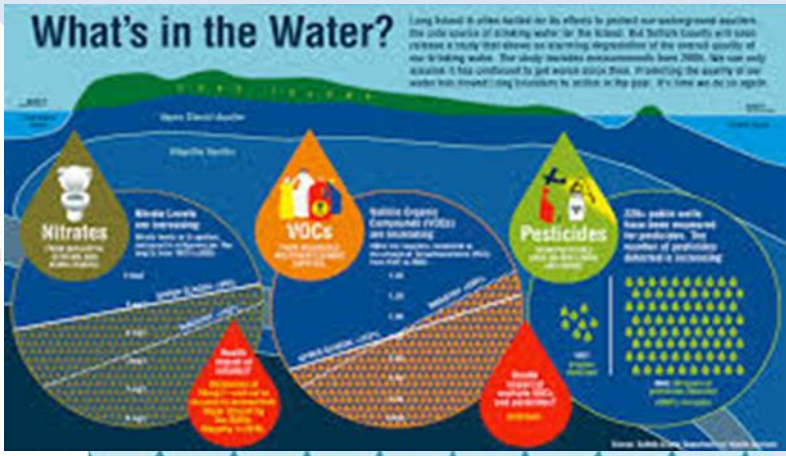
The potential risk of exposure to MTBE through drinking water in New Hampshire may be greatest in Rockingham County. This County has the second largest population in the state (280,500) and the largest population served by ground water (57,000 by community ground-water systems, 135,000 by private

U.S. Geological Survey (USGS) and the NHDES on the occurrence of MTBE in public and private wells used for drinking water in Rockingham County (Ayotte and others, 2004). These findings may have implications for future water-resources management in New Hampshire and other areas with similar hydrogeologic settings.

STUDY DESIGN

To accurately determine the occurrence and distribution of MTBE, this study incorporated a random sampling design and a lower analytical detection level (0.2 µg/L) than had previously been used in the state. Between May and August 2003, a total of 223 samples were collected from drinking-water sources, including 120 samples from public wells





OK, WHAT CAN YOU DO ABOUT IT?

Don’t despair! New Hampshirites have ingenuity…it’s in our blood

- “An important part of the New Hampshire character emerged during early Colonial times when people struggled with the terrain and long winters to establish settlements. Surviving and prospering helped to develop skills and outlooks on life that have become part of the New Hampshire identity. Taking pride in being able to figure things out and make them work – that's Yankee ingenuity. Hard work and persevering – that's enterprise.”

- “In New Hampshire self-reliance is balanced by teamwork. Sometimes the team is a husband and wife working together to farm the land, run a dairy or a small business. Sometimes the team is a work force of over 80-100 employees, and sometimes a team a network of over 200 individual craftsmen.”

Source: http://www.nh.gov/folklife/presenting-folklife/ingenuity-enterprise.htm

NH has a lot of smart people who can help you with some of the challenges you face…

Meet some of your partners:

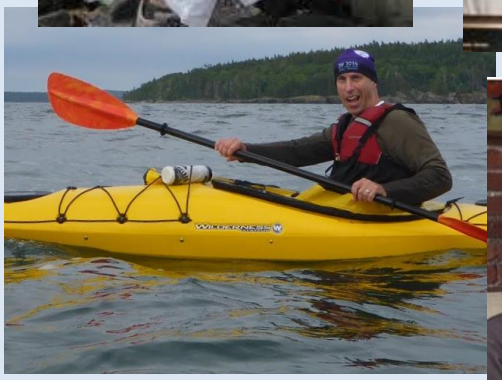














Source Water Collaborative Members: Signatories on National Call to Action

American Planning Association

American Water Works Association

Association of Clean Water Administrators

Association of Metropolitan Water Agencies

Association of State and Territorial Health Officials

Association of State Drinking Water Administrators

Clean Water Action/Clean Water Fund

Environmental Finance Center Network

Ground Water Protection Council

Groundwater Foundation

National Association of Conservation Districts

National Environmental Services Center

National Ground Water Association

National Rural Water Association

North American Lake Management Society

River Network

Rural Community Assistance Partnership

Smart Growth America

U.S. Department of Agriculture - Natural Resources Conservation Service

U.S. Environmental Protection Agency

U.S. Forest Service

Water Systems Council

VISION FOR THE FUTURE

The Source Water Collaborative's vision includes the following elements:

- ✓ Federal, State, and Local actions reflect the high value of safe drinking water
- ✓ Source Water Protection is embedded into our processes
- ✓ All Stakeholders work to help protect drinking water sources

Our Vision

All drinking water sources are adequately protected. As a result, the nation gains profound public health advantages as well as economic benefits.

CALL TO ACTION: WHAT YOU CAN DO

1. **Update/improve source water assessments and protection plans** to prioritize risks and actions, by leveraging new data and tools

2. Take priority actions to protect sources, **working with key partners**

3. **Coordinate, plan, and communicate in advance** with key partners as well as within water utilities **to help ensure that, during an emergency, rapid emergency notification is provided** to facilitate mitigation measures

KEY ACTIONS FOR WATER UTILITIES

Source water protection is part of an effective multiple-barrier approach to ensure the safety and quality of drinking water.

- **Update source water assessments, source water protection plans, and emergency response plans** with new information on potential sources of contamination
- **Build relationships with emergency responders and staff** at sites storing contaminants of concern
- **Identify funding strategies** for priority measures that protect source water
- **Develop and practice response and recovery plans** for potential contamination events·

KEY ACTIONS FOR LOCAL GOVERNMENTS

Local entities are well situated to address specific local source water concerns through land use planning and collaboration with key stakeholders.

- **Address potential impacts on drinking water quality and public health through land use planning** (from plan development and implementation through capital investment), zoning, development regulations, and code enforcement
- **Disseminate educational information** to community members on water quality issues
- **Coordinate with states and water utilities** in developing source water assessments and implementing protective measures

KEY ACTIONS FOR STATE DRINKING WATER & OTHER PROGRAMS

Collaboration between state water programs and other influential agencies (agriculture, parks, fish & game, forestry, conservation, and others) provides multiple opportunities to protect drinking water sources.

- **Communicate key information** from source water assessments to stakeholders to guide priority actions and advance protection
- Factor source water protection needs into **land acquisition and management strategies**
- **Partner with** communities and other watershed and ground water **stakeholders to implement priority actions**
- Facilitate community and state-level **all-hazards planning**

KEY ACTIONS FOR SOURCE WATER PARTNERS

- **Promote place-based initiatives** to focus your efforts
- **Share data and information** to help target source water protection and **encourage citizen scientist monitoring**
- **Inform and influence local land use decisions** that adequately consider potential impacts to drinking water sources
- Encourage land conservation groups to **work with water suppliers to identify critical, undeveloped land** for protecting drinking water source areas
- **Communicate** the importance of source water protection to local decision-makers
- **Understand and practice local communities' emergency response procedures** for chemical spill events

EXAMPLES OF CURRENT ACTIONS

- **State Drinking Water Programs:** Encourage and **engage in targeted updating of source water assessments** in collaboration with drinking water systems, and other state, federal, and local officials.
- **Federal Government: Encourage upstream facilities to accept shared responsibility for protecting source water** (this is currently happening in our region):

The Merrimack River Initiative:

In response to the spill in West Virginia, EPA Region 1, MassDEP, and the NHDES Drinking Water Programs worked together to map and survey above-ground storage tanks (ASTs) and host workshops with AST owners, city officials, and public drinking water suppliers.

Interested? Next workshop is being held in Nashua on May 12th

Please contact me or NHDES for more information

Take home message: Together, we can do this!

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Photo courtesy of Moose Mountain Regional Greenways